DISK-2-DISK™ transfers files between
C64/C128 and AmigaDOS

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Dear Disk-2-Disk User,

You know it is wrong to give copies of Disk-2-Disk to other people. We want you to think about the effect you have on us and the entire Amiga market if you do. There are a few people, like ourselves, who are struggling to provide the software tools to make your Amiga more useful and valuable, and, in the process, help keep the Amiga alive. When you give away Disk-2-Disk you hurt us, and ultimately yourself.

We had planned to put a 'word-from-the-manual' password check into Disk-2-Disk, but were persuaded that many of you would be offended by that. There is no copy protection on Disk-2-Disk. Some software developers say we are fools. We prefer to think we are optimists.

If you like Disk-2-Disk, tell your friends. If not, tell us.

Thank you for your support.

Betty & George

Betty and George Chamberlain

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OVERVIEW

Disk-2-Disk lets the Amiga read and write files on diskettes from Commodore 64 and Commodore 128 computers. Disk-2-Disk is a file transfer utility program which runs on the Commodore Amiga under AmigaDOS. Disk-2-Disk transfers all standard C64/C128 file types to or from 5.25-inch 1541 (single-sided) or 1571 (double-sided) diskettes. Disk-2-Disk requires that your Amiga be equipped with an external 5.25-inch disk drive.

Disk-2-Disk transfers data (binary) files and text (ASCII) files. However, Disk-2-Disk does NOT make it possible to run C64 or C128 programs on the Amiga. Disk-2-Disk does transfer C64/C128 program (PRG) files, but they will not run on the Amiga. A Commodore BASIC program that can be LISTed on the C64/C128 can be transferred as a sequential (SEQ) text file to AmigaDOS, where you can run it as an Amiga BASIC program. In most cases you will have to modify the program to run on the Amiga. The BASDIF utility included with Disk-2-Disk can help with these modifications by marking those statements in the program which must be changed.

Disk-2-Disk uses the Intuition interface, windows, and the mouse. You can start Disk-2-Disk from the Workbench screen or from the Command Line Interpreter (CLI). When you start Disk-2-Disk, it is loaded into memory from disk and remains resident until you complete your file transfer session. This lets you change AmigaDOS disks without having to maintain a copy of Disk-2-Disk on each disk. This is especially helpful if you have only a single 3.5-inch disk drive on your Amiga.

Disk-2-Disk accepts wild cards in filenames, according to the wild card conventions of the AmigaDOS operating system. If the file to be transferred already exists on the destination disk under the name you have specified, Disk-2-Disk asks you to confirm that you wish to replace the old file.

HARDWARE REQUIREMENTS

Disk-2-Disk requires an Amiga with at least 256KB of memory, an external 5.25-inch disk drive, and AmigaDOS V1.1 or V1.2. The external disk drive can be configured as AmigaDOS drive DF1, DF2, or DF3.

GETTING STARTED

Kickstart your Amiga in the standard manner with either a V1.1 or V1.2 Kickstart disk. Insert the Workbench disk as directed. When the Workbench screen appears, remove the Workbench disk and insert the Disk-2-Disk disk. Click on the Disk-2-Disk disk icon with the left mouse button. Then click on the Disk-2-Disk logo icon to start Disk-2-Disk. Note also the READ ME file, which you can list to your screen by clicking the READ ME icon.

From CLI, type Disk-2-Disk.

When Disk-2-Disk displays its sign-on greeting, read the initial message, then click the box in the lower right corner marked PROCEED. Disk-2-Disk runs in its own window, which you can "hide" using the foreground/background gadgets in the upper right corner. All of Disk-2-Disk's functions are available in this one window. There are no drop-down menus to access.

Note: Disk-2-Disk operates in 80-column mode only. If you have selected 60-column mode in Preferences, the Disk-2-Disk displays will not look right. To correct the problem, you must change your Preferences setting to 'Text 80'.

When it first starts, Disk-2-Disk reads and displays the directory of the C64/C128 disk (if any) in DF2, and also displays the current AmigaDOS directory.

When you finish using Disk-2-Disk, click on the CLOSE gadget in the upper left corner of the Disk-2-Disk window to exit from Disk-2-Disk.

SPECIFYING THE C64/C128 DISK DRIVE

Disk-2-Disk initially assumes that disk drive DF2 is the 5.25-inch drive which will be used for all C64/C128 file transfers. If that drive is not correct, click on the drive code gadget in the C64/C128 filename box above the C64/C128 directory window to change the drive specification.

SELECTING A FILE

The first step in processing any file is to "select" the desired file from one of the two directory windows. Move the

mouse pointer over the the name of the file you wish to process, and click the left mouse button. If the desired file is "off screen", use the scroll gadgets at the right side of the directory window to move the filename into the window. You can select a file from either the C64/C128 directory or from the AmigaDOS directory. Files are listed in alphabetic order.

The Amiga directory window initially displays the contents of the Amiga directory which is current at the time you start Disk-2-Disk. To change to another Amiga directory, click on the PARENT DIR or ROOT DIR boxes, or enter the subdirectory path into the Amiga filename box. A subdirectory path must end with a "/". To change to another Amiga device, including RAM:, enter the device name followed by a colon in the Amiga filename box.

The Amiga directory window lists both file names and subdirectory names. Subdirectory names are highlighted in an alternate color. If you click on a subdirectory name, Disk-2-Disk displays the contents of that subdirectory. To return to the previous directory, click on the PARENT DIR box.

Note: C64/C128 disks do not have subdirectories.

When you select a file, Disk-2-Disk copies the selected file name to the filename box, highlights the name in the filename box as the "selected" file and sets the direction of the COPY arrow to reflect the selected file as the source file for the copy. The same name is moved into the destination filename box. If you want the destination file to have a name different from that of the source file, you can edit the destination filename or enter a different name into the destination filename box prior to starting the copy.

When you select an AmigaDOS file to be copied to a C64/C128 disk, Disk-2-Disk may not retain the full AmigaDOS filename, because the AmigaDOS filename may be longer than the maximum of 16 characters permitted in an C64/C128 filename, and may contain characters which are not legal in C64/C128 filenames. When this happens, Disk-2-Disk truncates the name to 16 characters, and removes any illegal characters. You may edit the name in the destination filename box, if you wish.

Instead of selecting a file using the mouse, you can type the name of the desired file, complete with path, in the appropriate filename box. If you have not already selected a file, the filename you enter is highlighted, and Disk-2-Disk sets the copy direction to show the new name as the source file.

Copying a file

First you must select a file to be copied, as described on page 2. Then examine the direction of the COPY arrow to be certain that the file will be copied in the direction you want. The direction of the arrow indicates the direction of the copy. To reverse the direction, click on the "TO" or the "FROM" or select a file from the opposite directory. Then, to start the copy process, click on the COPY "arrow" gadget.

If you have not selected a file to copy, Disk-2-Disk cannot perform the copy operation. If the selected file name already exists on the destination disk, Disk-2-Disk asks if you wish to replace it. Note that you can suppress this message by clicking the "ASK TO REPLACE" box, which changes to "AUTO REPLACE". See page 7.

If the file must be converted from Commodore ASCII to Amiga ASCII (or vice versa) during the file transfer, you must select the proper ASCII conversion option before you click on the COPY arrow. See page 6.

When Disk-2-Disk copies an Amiga file to a C64/C128 disk, it must assign a file type (SEQ, REL, USR, or PRG). The type assigned is determined by the File Type box. See page 7.

You can use wild cards in the source file names, if you wish to transfer a group of files with a single COPY command. You must follow the appropriate AmigaDOS wildcard usage rules.

When Disk-2-Disk transfers a group of C64/C128 files to AmigaDOS, Disk-2-Disk retains the original filename for each new AmigaDOS file. When Disk-2-Disk transfers a group of AmigaDOS files to a C64/C128 disk, the original AmigaDOS filename is truncated to 16 characters, and illegal characters are removed.

We suggest that you enable write-protection on the disk you are copying from, just to prevent accidents.

COPYING BASIC PROGRAMS TO THE AMIGA

You can use Disk-2-Disk to transfer BASIC programs from the C64 or C128 to the Amiga, where you can convert them to Amiga BASIC form and run them as Amiga BASIC programs. But remember:

```
**************************************************************
* Disk-2-Disk does NOT make it possible to run C64 or C128   *
* programs directly on the Amiga. Disk-2-Disk does transfer  *
* C64/C128 program (PRG) files, but they will NOT run on the *
* Amiga.                                                     *
**************************************************************
```

C64 and C128 BASIC programs are normally stored using the SAVE or DSAVE command in a compressed form on a disk as program (PRG) files. In such a form, they cannot be used on the Amiga. To transfer a BASIC program from a C64 or C128 to the Amiga, you must be able to LIST the program. Many commercial C64 and C128 BASIC programs are protected from being listed, and therefore CANNOT be used on the Amiga.

If a program is written in BASIC, and you can LIST it on the C64/C128, you can transfer it to the Amiga as a sequential (SEQ) file in ASCII text format. First LOAD the file into C64 or C128 memory using the appropriate LOAD command. Then type LIST to display the BASIC statements of the file on the screen. If this works, then type the following commands to LIST the file to your disk as a SEQ file:

```
OPEN 1,8,5,"filename,S,W"
CMD 1:LIST
```

These steps open a sequential file in write mode, and divert the output of the LIST step to the new file. If you want to list only a portion of the file, the LIST command in the second line can be any of the usual variations of the LIST command. When the flashing cursor returns, close the file with these commands:

```
PRINT#1
CLOSE1
```

These commands cancel the CMD command and close the new file. Your file is now stored on the disk as a SEQ file containing ASCII text in Commodore ASCII format. Now you can transfer the program to the Amiga using Disk-2-Disk. Be certain to specify the UC/lc ASCII conversion option, described on page 6. Next, click the BASDIF box, described on page 8, to flag any Commodore BASIC statements which must be converted to Amiga BASIC.

Finally, start Amiga BASIC and load the new BASIC program, or click the icon of the new program to run it. LIST the program under Amiga BASIC and search for lines containing REM***. In most cases you will have to make at least a few changes to the program before you can expect it to run properly on the Amiga.

ASCII BOX

A text file on the C64 or C128 is coded in one of two formats: upper and lower case characters, or upper case only with graphics characters. Neither of these two formats conforms to the standard format for text storage used by most computers, including the Amiga, which is called ASCII. Therefore, text files must be converted when they are moved between a C64 or C128 and the Amiga.

The ASCII box selects the type of ASCII text conversion (if any) which Disk-2-Disk performs during the file transfer. Initially, Disk-2-Disk assumes NOT ASCII, which means that no text conversion is performed. In this mode, each byte of the file is transferred with no changes.

If you click on this box, it changes to UC/lc ASCII, which specifies that the selected file is a text file containing Commodore uppercase/lowercase characters which is to be converted to Amiga (standard) ASCII, or vice versa.

If you click on this box a second time, it changes to UC/grph ASCII, which specifies that the selected file is a text file containing Commodore uppercase/graphics characters which is to be converted to Amiga (standard) ASCII, or vice versa.

Note that Disk-2-Disk cannot detect an incorrect conversion option, and must do the best it can based on your specification. Therefore, you should examine the C64/C128 file (see DISPLAY TEXT below) before you transfer it to the Amiga to determine if you have selected the correct ASCII conversion option.

REPLACE FILE BOX

Click on this box if you wish Disk-2-Disk to replace existing files without first asking. Note that the box changes to AUTO REPLACE. If you click on the box again, it changes back to ASK TO REPLACE.

FILE TYPE BOX

When Disk-2-Disk writes a file to a C64/C128 disk, it must assign a file type (SEQ, REL, USR, or PRG) to the file. The purpose of this box is to set the file type for files written to the C64/C128 disk. Initially, Disk-2-Disk assumes SEQ. If you select a C64/C128 file as the source, Disk-2-Disk automatically changes the File Type box to match the selected file. You can also change the file type by clicking on the box. Each time you click on the box it changes the file type.

DISPLAY TEXT BOX

The Display Text box displays the text of the selected file in a special window. It works with either AmigaDOS or C64/C128 files. For C64/C128 files (only), Display Text performs the ASCII conversion specified by the ASCII conversion box as it displays the text of the file. This can be very helpful in determining before you transfer the file which form of ASCII conversion you should use.

Display Text was designed for use with ASCII text files. While you can use it with **any** file, it works best with text files. Disk-2-Disk converts tabs to single spaces for the purposes of display only.

DELETE FILE BOX

Click this box to delete (SCRATCH) the selected AmigaDOS or C64/C128 file from the specified directory. The DELETE command does not accept wildcards. If you wish to delete a group of files, you must do so one at a time.

BASDIF BOX - Mark BASIC Differences

Amiga BASIC is very similar to Commodore BASIC, since both were written by Microsoft. Commodore BASIC exists in two forms: BASIC 2.0 on the C64 and BASIC 7.0 on the C128. Neither of these dialects exactly matches Amiga BASIC. Some differences, such as keyword spacing and line numbers, are more cosmetic than substantial. Other differences are more significant. However, since BASIC is so popular on the C64 and C128, Disk-2-Disk includes a utility program which examines a text file and identifies Commodore BASIC statements which are not compatible with Amiga BASIC.

If you click on the BASDIF box, Disk-2-Disk scans the file specified by the Amiga filename box looking for Commodore BASIC keywords. If it finds a keyword which is not valid in Amiga BASIC, it makes the statement into a remark, by placing the characters

REM***

in front of the offending statement. This even applies to BASIC statements such as PEEK and POKE, which have identical syntax in Amiga BASIC, but obviously cannot produce the same result. At the same time, Disk-2-Disk inserts spaces between Commodore BASIC keywords and any operands, as required by Amiga BASIC.

Disk-2-Disk does not remove line numbers, nor does it delete any text. It makes no attempt to translate Commodore BASIC keywords into equivalent Amiga BASIC keywords, since these steps depend to a large degree on the logic of the BASIC program being converted. However, by marking the differences between the various versions of BASIC, Disk-2-Disk gives you a good start toward converting your BASIC programs to run on the Amiga.

Please note that BASDIF does not perform a full syntax check on each Commodore BASIC statement. You may find that Amiga BASIC detects other problems in the program beyond those flagged by BASDIF.

BASDIF creates a BASIC program icon for the selected file, which it stores on the disk along with the marked file. This makes it easy to invoke the new BASIC program from Workbench, as you would any other Amiga BASIC program.

FORMAT DISK BOX - Format 1541 or 1571 diskette

Click on this box to format a 5.25-inch diskette in 1541 or 1571 format. Disk-2-Disk does not format AmigaDOS disks. If you need to format a disk for use with AmigaDOS, you must use the AmigaDOS format program.

Before formatting the disk, Disk-2-Disk asks you for the name you wish to assign to the disk, and the type of disk (1541 or 1571). Note that formatting completely erases all data on the diskette.

DISK CHANGE BOX

Click on this box whenever you change the C64/C128 disk. The Amiga cannot detect such changes automatically.

BAM CHECK BOX

Click on this box if you have reason to suspect the integrity of the 1541 or 1571 disk you are attempting to use. Disk-2-Disk scans the directory of the disk and checks the blocks allocated to each file against the Block Availability Map (BAM) of the disk. If Disk-2-Disk finds any discrepancies, it reports the problem to you in a requester. You should not try to copy files from a corrupted disk.

READ CHECK BOX

Click on this box if you wish Disk-2-Disk to perform a read check of a 1541/1571 disk. Disk-2-Disk reads every sector of the disk, to verify the readability of the disk. Errors are reported in a requester. If you experience problems reading a diskette, see the discussion of drive alignment in the next section.

DISK-2-DISK LIMITATIONS

C64 and C128 program (PRG) files do not run on the 68000 microprocessor of the Amiga. Likewise, Amiga programs do not run on the 6510/8510 family of microprocessors of the C64/C128. Disk-2-Disk transfers program files, but you cannot run the transferred program on the destination computer.

Disk-2-Disk works with 256-byte sector sizes, and 35-track 5.25-inch diskettes only. This means that Disk-2-Disk cannot read disks which are copy-protected using non-standard sector sizes or other non-standard formatting tricks.

If you experience problems with a disk which is not copy-protected, try the BAM check or READ check boxes to verify the integrity of the diskette. Disk-2-Disk cannot properly transfer files from a disk which is corrupted.

You may experience problems with diskettes formatted or written on 1541 disk drives. These disk drives are notoriously prone to alignment problems. You may experience difficulties reading 1541 diskettes on your Amiga which work just fine on your 1541 disk drive. Likewise, you may be unable to read a disk on your 1541 which was formatted and written on the Amiga. Although the Amiga Model 1020 5.25-inch disk drive seems to be fairly tolerant of diskette alignment errors, we cannot guarantee that it can read all disks. If you experience this problem, we suggest that you have your 1541 drive alignment checked at a competent Commodore repair center.

Disk-2-Disk operates in 80-column mode only. If you have selected 60-column mode in Preferences, the Disk-2-Disk displays will not look right. To correct the problem, you must change your Preferences setting to 'Text 80'.

Now what we REALLY need for the Amiga is . . .

Is there some program YOU would like to have for your Amiga which isn't available or costs too much or doesn't offer the features you need? If so, let us know. We are always looking for ideas for new products, and we would like to hear from you. Drop us a line or give us a call at (805) 528-4906.

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